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APPLICATION NO). FI	LING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,245	(01/31/2001	Heino Hameleers	34648-463USPX P11147US	6149
27045	7590	11/16/2005		EXAM	INER
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6300 LEGACY DRIVE M/S EVR C11				ART UNIT	PAPER NUMBER
PLANO,	TX 75024		2661		
				DATE MAILED: 11/16/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)				
	09/773,245	HAMELEERS ET AL.				
Office Action Summary	Examiner	Art Unit				
	lan N. Moore	2661				
The MAILING DATE of this communication a Period for Reply	appears on the cover sheet w	ith the correspondence address				
A SHORTENED STATUTORY PERIOD FOR REF WHICHEVER IS LONGER, FROM THE MAILING - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication If NO period for reply is specified above, the maximum statutory peri - Failure to reply within the set or extended period for reply will, by sta Any reply received by the Office later than three months after the ma earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNI 1.136(a). In no event, however, may a iod will apply and will expire SIX (6) MOI tute, cause the application to become A	CATION. reply be timely filed NTHS from the mailing date of this communication. BANDONED (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on <u>07</u>	September 2005.	·				
2a)⊠ This action is FINAL . 2b)□ T	<u> </u>					
3) Since this application is in condition for allow closed in accordance with the practice under	•					
Disposition of Claims						
4)⊠ Claim(s) <u>42-77</u> is/are pending in the applica	ition.					
4a) Of the above claim(s) is/are without	frawn from consideration.					
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>42-77</u> is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and	d/or election requirement.					
Application Papers						
9)☐ The specification is objected to by the Exam						
10)⊠ The drawing(s) filed on 03 January 2001 is/a						
Applicant may not request that any objection to t						
Replacement drawing sheet(s) including the corr						
11) The oath or declaration is objected to by the	Examiner. Note the attache	d Oπice Action or form P1O-152.				
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for fore	ign priority under 35 U.S.C.	§ 119(a)-(d) or (f).				
a) ☐ All b) ☐ Some * c) ☐ None of:						
1. Certified copies of the priority docume						
2. Certified copies of the priority docume						
3. Copies of the certified copies of the p		n received in this National Stage				
application from the International Bur * See the attached detailed Office action for a		t received				
See the attached detailed Office action for a	ist of the certified copies no	r received.				
Attachment(s)						
 Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) 	·	Summary (PTO-413) (s)/Mail Date				
Notice of Draitsperson's Fatient Statement (FF 3-35) Information Disclosure Statement(s) (PTO-1449 or PTO/SB. Paper No(s)/Mail Date		Informal Patent Application (PTO-152)				

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DETAILED ACTION

Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 42-48, 51-57, 60-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billstrom (U.S. 5,590,133) in view of Rasanen'006 (U.S. 6,647,006).

Regarding Claims 42 and 60, Billstrom discloses a method for data transmission between a circuit switched network (see FIG. 1, digital cellular packet domain), via an interface means (see FIG. 1, a combined interface system of HLR, HLR interrogation server, PD controller, MSC/VLR, OMC, NAS, and IWF) that includes a media gateway (see FIG. 1, IWF), and a packet switched network (see FIG. 1, Internet, PSPDN), the method comprising:

coupling the circuit switched network to the packet switched network with the interface means (see col. 7, lines 40 to col. 8, lines 21), wherein two network layers in the circuit switched network are used for carrying the data transmission (see FIG. 1, signaling/application level/layer and transport/transmission level/layer in digital cellular network; see col. 6, lines 34 to col. 7, lines 39), via the interface means, between the circuit switched network and the packet switched network (see FIG. 1, via a combined interface system between cellular network and Internet);

processing signaling Information associated with the data transmission in the circuit switched network on a first network layer of the two network layers (see FIG. 1, a combined signaling level/layer of HLR, HLR interrogation server, PD controller, BSC, MSC/VLR, OMC,

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and NAS; see col. 6, lines 34-65; see col. 9, lines 20-34; note that a combined signaling level/layer transfers/establishes the signaling information for call/connection);

transferring the payload information associated with the data transmission on a second network layer of the two network layers (see FIG. 1, a combined transport/transmission level/layer of MS, BTS and MSC and IWF) in the circuit switched network (see col. 6, lines 65 to col. 8, lines 21; see col. 9, lines 20 to col. 10, lines 6; note that a combined transport/transmission level/layer transfers/communicates the packet/voice information) utilizing a protocol stack (see FIG.2, protocol stack), the protocol stack comprising:

a first protocol stack in a mobile station (see FIG. 2, MS TE+MT protocol stack), the first protocol stack coupled to

a second protocol stack in a radio network means (see FIG. 2, BTS protocol stack and/or MSC stack), the second protocol

stack being coupled to

a third protocol stack in the media gateway (see FIG. 2, IWF protocol stack); and information frame generating means (see FIG. 2 and 3 BTS, Base Transceiver Station) for generating an information frame containing payload information associated with the data transmission responsive to detecting a received information frame (see col. 8, lines 1-46; note that BTS generates the information packet/frame when a data frame is transmitted/received to/from the MS, and each TCP/IP frame/packet contains header (i.e. payload information)); and wherein information frames are forwarded to the packet switched network via a direct connection between the radio network means and the media gateway (see FIG. 1, data frames are

forwarded to Internet via a direction connection between cellular network domain and IWF; see col. 8, lines 1-21; col. 7, lines 40-56).

Billstrom does not explicitly disclose lacking payload information; a first discontinuous transmission means discarding the received information frame to improve data rate. However, Rasanen'006 teaches a first protocol stack in a mobile station (see FIG. 1A-B, MS/TAF protocol stack), the first protocol stack coupled to

a second protocol stack in a radio network means (see FIG. 1A-B, BSS protocol stack), the second protocol

stack being coupled to

a third protocol stack in the media gateway (see FIG. 1A-B, IWF protocol stack); and information frame generating means (see FIG. 1A-B, BSS) for generating an information frame containing payload information associated with the data transmission (see FIG. 1A-B; note that BSS generates the information packet/frame when a data frame is transmitted/received to/from the MS, and each frame/packet contains header (i.e. payload information; see col. 7, lines 26-62); and

responsive to detecting a received information frame lacking payload information, a first discontinuous transmission (DTX) means in the second protocol stack (see FIG. 1A-B, BSS with discarding means) discarding the received information frame to improve the data rate (see col. 7, lines 25-62; see col. 8, lines 22-67; see col. 5, lines 15 to col. 6, lines 46; discarding the fill/empty frame to improve the rate),

wherein remaining information frames are forwarded to the packet switched network (see col. 5, lines 50-56; Internet) via a direct connection between the radio network means (see FIG.

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1A-B, BSS) and the media gateway (see FIG. 1A-B, IWF; see col. 7, lines 25-62; see col. 5, lines 1567; non-empty/fill frame are forwarded to Internet).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide discarding/discontinuous transmission means at BSS when detecting a fill/empty data, as taught by Rasanen'006 in the system of Billstrom, so that it would not require any other changes at the radio interface or the network interface, nor does it restrict their further development in any way. The motivation being that by discarding the fill data that gateway IWF unit, it will reduce the packet processing at the radio and network interface while preparing the network for further development.

Regarding Claims 51 and 70, Billstrom discloses a method for data transmission from a packet switched network (see FIG. 1, Internet, PSPDN), via an interface means (see FIG. 1, a combined interface system of HLR, HLR interrogation server, PD controller, MSC/VLR, OMC, NAS, and IWF) that includes a media gateway (see FIG. 1, IWF), to a circuit switched network (see FIG. 1, digital cellular packet domain), the method comprising:

coupling the packet switched network to the circuit switched network with the interface means (see col. 7, lines 40 to col. 8, lines 21), wherein two network layers in the circuit switched network are used for carrying the data transmission (see FIG. 1, signaling/application level/layer and transport/transmission level/layer in digital cellular network; see col. 6, lines 34 to col. 7, lines 39) via the Interface means between the packet switched network and the circuit switched network (see FIG. 1, via a combined interface system between Internet and cellular network):

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receiving the data transmission from the packet switched network in the media gateway (see FIG. 1, and see col. 7, lines 30 to col. 8, lines 21; the data information is received at IWF from Internet);

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processing signaling Information associated with the data transmission in the circuit switched network on a first network layer of the two network layers (see FIG. 1, a combined signaling level/layer of HLR, HLR interrogation server, PD controller, BSC, MSC/VLR, OMC, and NAS; see col. 6, lines 34-65; see col. 9, lines 20-34; note that a combined signaling level/layer transfers/establishes the signaling information for call/connection);

transferring the payload information associated with the data transmission on a second network layer of the two network layers (see FIG. 1, a combined transport/transmission level/layer of MS, BTS and MSC and IWF) in the circuit switched network (see col. 6, lines 65 to col. 8, lines 21; see col. 9, lines 20 to col. 10, lines 6; note that a combined transport/transmission level/layer transfers/communicates the packet/voice information) utilizing a protocol stack (see FIG.2, protocol stack), the protocol stack comprising:

a first protocol stack in the media gateway (see FIG. 2, IWF protocol stack), the first protocol stack coupled to

a second protocol stack in a radio network means (see FIG. 2, BTS protocol stack and/or MSC stack), the second protocol

stack being coupled to

a third protocol stack in a mobile station (see FIG. 2, MS TE+MT protocol stack); and information frame generating means (see FIG. 2 and 3 IWF) for generating an information frame containing payload information associated with the data transmission

responsive to detecting a received information frame (see col. 8, lines 1-46; note that IWF generates the information packet/frame when a data frame is transmitted/received to/from the Internet, and each TCP/IP frame/packet contains header (i.e. payload information)); and wherein remaining information frames are forwarded to the mobile station via a direct connection between the media gateway and the radio network means (see FIG. 1 and 2; TCP/IP frames are forwarded to MS via a direction connection between IWF and cellular network domain; see col. 8, lines 1-21; col. 7, lines 40-56).

Billstrom does not explicitly disclose lacking payload information; a discontinuous transmission means discarding the received information frame to improve data rate. However, Rasanen'006 teaches a first protocol stack in the media gateway (see FIG. 1A-B, IWF protocol stack), the first protocol stack coupled to

a second protocol stack in a radio network means (see FIG. 2, BTS protocol stack and/or MSC stack), the second protocol

stack being coupled to

a third protocol stack in a mobile station (see FIG. 1A-B, MS/TAF protocol stack); and information frame generating means for generating an information frame containing payload information associated with the data transmission (see FIG. 1A-B; note that IWF generates the information packet/frame when a data frame is transmitted/received to/from the MS, and each frame/packet contains header (i.e. payload information; see col. 7, lines 62 to col. 8, lines 22; see col. 5, lines 15-65); and

responsive to detecting a received information frame lacking payload information, a first discontinuous transmission (DTX) means in the first protocol stack (see FIG. 1A-B, IWF with

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discarding means) discarding the received information frame to improve the data rate (see col. 7, lines 62 to col. 8, lines 21; see col. 9, lines 1-26; see col. 5, lines 15 to col. 6, lines 46; discarding the fill/empty frame),

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wherein remaining information frames are forwarded to the mobile station (see FIG. 1 A-B, MS) via a direct connection between the media gateway (see FIG. 1A-B, IWF) and the radio network means (see FIG. 1A-B, BSS; non-empty/fill frames are forwarded to MS; see col. 8, lines 1-21; col. 7, lines 40-56).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide discarding/discontinuous transmission means at IWF when detecting a fill/empty data, as taught by Rasanen'006 in the system of Billstrom, so that it would not require any other changes at the radio interface or the network interface, nor does it restrict their further development in any way. The motivation being that by discarding the fill data that gateway IWF unit, it will reduce the packet processing at the radio and network interface while preparing the network for further development.

Regarding Claims 43, 52, 62, and 71, Billstrom discloses wherein the circuit switched network is a cellular telephone network (see FIG. 1, digital cellular packet domain), the radio network means is a Base Transceiver Station (BTS) (see FIG. 1, BTS), the packet switched network is the Internet (see FIG. 1, Internet), and the second layer of the two network layers further comprises Information frame generating means (see FIG. 2 and 3 BTS, Base Transceiver Station) for generating an information frame with a receive sequence number (see col. 8, lines 1-46; note that BTS generates the information packet/frame with a received TCP/IP sequence number to/from the MS. Also, note that each TCP/IP packet/frame has a sequence number).

Rasanen'006 also discloses the GSM cellular network, BSS that comprises BTS, Internet, and generating a information frame as set forth in claim 42 above.

Regarding Claims 44, 53, 63 and 72, Billstrom discloses wherein the circuit switched network is a GSM cellular telephone network (see col. 6, lines 10-36; GSM system).

Regarding Claims 45, 54, 64 and 73, Rasanen'006 discloses adapting a transfer rate of the payload information within the BTS (see FIG. 1A-B and 2, BTS with Rate Adaptation, RA; see col. 5, lines 15 to col. 6, lines 41). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide rate adaptation by discarding means, as taught by Rasanen'006 for the same motivation as stated above in claim 42.

Regarding Claim 46, 55, 65 and 74, Rasanen'006 discloses disabling a second DTX means (see FIG. 1 A-B, IWF discarding means) in the third protocol stack (see FIG. 1 A-B, IWF; see col. 7, lines 26 to col. 8, lines 21; from MS to IWF, when BSS/BTS is discarding the fill/empty frames, IWF discarding means in IWF is disable since the fill/empty frames are also discarded at BSS/BTS). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide rate adaptation by discarding means, as taught by Rasanen'006 for the same motivation as stated above in claim 42.

Regarding Claims 47 and 66, Billstrom discloses generating information frames containing payload information in the first protocol stack (see FIG. 2 and 3; MS protocol stack creates information frame with TCP/IP header which contains payload information; see col. 8, lines 1-46).

Regarding Claims 48 and 67, Billstrom discloses monitoring the generated information frames for determining whether the generated information frames contain payload information

(see col. 6, lines 65 to col. 8, lines 21; BSS/BTS determines the payload information from the received frames). Rasanen'006 also discloses monitoring the generated information frames for determining whether the generated information frames contain payload information (see col. 7, lines 25-62; see col. 8, lines 22-67).

Regarding Claims 56 and 75, Billstrom discloses generating information frames containing payload information in the first protocol stack (see FIG. 2 and 3; IWF creates information frame with TCP/IP header which contains payload information; see col. 8, lines 1-46). Rasanen'006 also discloses generating information frames containing payload information in the first protocol stack (see FIG. 1A-B, IWF generates frames with payload information; see col. 7, lines 60 to col. 8, lines 22; see col. 9, lines 1-25).

Regarding Claims 57 and 76, Billstrom discloses monitoring the generated information frames for determining whether the generated information frames contain payload information (see col. 6, lines 65 to col. 8, lines 21; IWF determines the payload information from the received frames). Rasanen'006 also discloses monitoring the generated information frames for determining whether the generated information frames contain payload information (see col. 7, lines 60 to col. 8, lines 22; see col. 9, lines 1-25).

Regarding Claim 61, Billstrom discloses monitoring the generated information frames in the second protocol stack (see col. 6, lines 65 to col. 8, lines 21; BSS/BTS monitors and determine the payload information from the received frames). Rasanen'006 also discloses monitoring the generated information frames in the second protocol stack.

3. Claims 49,50,58,59,68,69, and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billstrom in view of Rasanen'006 as applied to claim 41 above, and further in view of Mallory (U.S. 6,335,933).

Regarding Claims 49, 59, 69 and 77, the combined system of Billstrom and Rasanen'006 discloses frame having sequence number as described above in claims 42, 43,47,48 above. Rasanen'006 discloses detecting an "S" frame, which carries supervisory information (see col. 9, lines 40-49; a RLP frame with denoted status and control bit), and discarding the "S" frame (see col. 7, lines 30-51; see col. 8, lines 24-67; discarding a denoted status and control bit RLP frame).

Neither Billstrom nor Rasanen'006 explicitly discloses step if the frame receive sequence number is equal to that of a previous frame. However, Mallory discloses detecting a frame (see FIG. 10, S2 yes, New sequence number?; see Mallory col. 9, lines 30-35, 50-52; when the frame type is LARO frame), and

if the frame receives sequence number is equal to that of a previous frame (see FIG. 10, Duplicate or too old?; see col. 9, lines 50-54; determine whether the current frame sequence number duplicates previously received sequence number), discarding the frame (see FIG. 10, Duplicate YES, drop frame; col. 2, lines 52-59).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to detect frame type and sequence number and dropping the duplicate frames, as taught by Mallory, in the combined system of Billstrom and Rasanen'006, so that it would provide reduce effective frame lost rates and delays with minimal cost in terms network bandwidth and host resources; see Mallory col. 2, lines 50-60.

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Regarding Claims 50 and 68, Billstrom discloses monitoring the generated information frames in the second protocol stack (see col. 6, lines 65 to col. 8, lines 21; BSS/BTS monitors and determine the payload information from the received frames). Rasanen'006 also discloses monitoring the generated information frames in the second protocol stack (see col. 7, lines 26-62; see col. 8, lines 22-67).

Regarding Claim 58, Billstrom discloses monitoring the generated information frames in the first protocol stack (see col. 6, lines 65 to col. 8, lines 21; IWF monitors and determine the payload information from the received frames). Rasanen'006 also discloses monitoring the generated information frames in the first protocol stack (see col. 7, lines 60 to col. 8, lines 22; see col. 9, lines 1-25).

Response to Arguments

4. Applicant's arguments filed 9/7/2005 have been fully considered but they are not persuasive.

Regarding claims 42-48, 51-57, 60-67, 70-76, the applicant argued that, "...Billstrom and Rasanen references fail to disclose at least the emphasized limitations... responsive to detecting a received information frame lacking payload information a first discontinuous transmission (DTX) means in the second protocol stack discarding the received information frame to improve the data rate, wherein remaining information frames are forward to the packet switched network via a direct connection between the radio network means and the media gateway, (emphasis added)..." in page 11, paragraph 1-2; page 13, paragraph 2, 4-5.

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In response to applicant's argument, the examiner respectfully disagrees with the applicant argument above. Billstrom discloses information frame generating means (see FIG. 2 and 3, IWF) for generating an information frame containing payload information associated with the data transmission responsive to detecting a received information frame (see col. 8, lines 1-46; note that IWF generates the information packet/frame when a data frame is transmitted/received to/from the Internet, and each TCP/IP frame/packet contains header (i.e. payload information)); and wherein remaining information frames are forwarded to the mobile station via a direct connection between the media gateway and the radio network means (FIG. 1 and 2; TCP/IP frames are forwarded to MS via a direction connection between IWF (i.e. media gateway) and cellular network domain (i.e. radio network means); see col. 8, lines 1-21; col. 7, lines 40-56). Note that, according to Billstrom's FIG. 1 and 2, one can clearly evident that the backbone network provides a direct connection between IWF and a combined radio system. Rasanen discloses responsive to detecting a received information frame lacking payload information, a first discontinuous transmission (DTX) means in the second protocol stack (see FIG. 1A-B, BSS with discarding means) discarding the received information frame to improve the data rate (see col. 7, lines 25-62; see col. 8, lines 22-67; see col. 5, lines 15 to col. 6, lines 46; discarding the fill/empty frame to improve the rate), wherein remaining information frames are forwarded to the packet switched network (see col. 5, lines 50-56; Internet) via a direct connection between the radio network means (see FIG. 1A-B, BSS) and the media gateway (see FIG. 1A-B, IWF; see col. 7, lines 25-62; see col. 5, lines 1567; non-empty/fill frame are forwarded to Internet via a direct connection).

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Thus, it is clear that the combined system of Billstrom and Rasanen clearly discloses the applicant claimed and agued limitations as set forth above.

The applicant argued that, "...Billstrom does not appear to disclose sending signaling on a first layer and sending payload via a direction on a second layer to a media gateway..." in page 11, paragraph 11.

In response to applicant's argument, the examiner respectfully disagrees with the applicant argument above. Billstrom discloses processing signaling Information on a first network layer (see FIG. 1, a combined signaling level/layer of HLR, HLR interrogation server, PD controller, BSC, MSC/VLR, OMC, and NAS; see col. 6, lines 34-65; see col. 9, lines 20-34; note that a combined signaling level/layer transfers/establishes the signaling information for call/connection); transferring the payload information on a second network layer (see FIG. 1, a combined transport/transmission level/layer of MS, BTS and MSC and IWF; col. 6, lines 65 to col. 8, lines 21; see col. 9, lines 20 to col. 10, lines 6; note that a combined transport/transmission level/layer transfers/communicates the packet/voice information).

Regarding sending to a media gateway via a direct connection argument, please see the responses as set forth above. Moreover, examiner is asserting the above-argued limitation (which is also well known and established in the art of radio communication) to Billstrom's FIG. 1 and 2, in light of the applicant's FIG. 1 where a first network layer comprises applications/network services of signaling information and the second layer comprises transmission of traffic/data.

The applicant argued that, "...Rasanen ...find no reference to discarding frames ..." in page 12, paragraph 3.

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In response to applicant's argument, the examiner respectfully disagrees with the applicant argument above. Billstrom discloses discarding the received information frame (see col. 7, lines 25-62; see col. 8, lines 22-67; see col. 5, lines 15 to col. 6, lines 46; discarding the fill/empty frame).

The applicant argued that, "...Rasanen discards filled frames or corrupted frames that were filled or corrupted intentionally by the BTS. This is contrary to the operation of the applicant, which discards frame lacking payload (i.e. empty) frames ..." in page 13, paragraph 1.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., empty frames or un-intentionally corrupted frames) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Note that claim 42 recites the limitation, "lacking payload information". Thus, examiner asserts that a frame that does not contain valid payload information, or a frame that contains corrupted payload information as "lacking payload information", and Rasanen clearly discloses discarding such frames.

Conclusion

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N. Moore whose telephone number is 571-272-3085. The examiner can normally be reached on 9:00 AM- 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

INM 9 N II 11-8-05

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